

FORM PTO-1390
(REV 10-2000)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

4418-2

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

10/088887 To Be Assigned

INTERNATIONAL APPLICATION NO.
PCT/AU00/01168

INTERNATIONAL FILING DATE
25 September 2000 (25.09.2000)

PRIORITY DATE CLAIMED
24 September 1999 (23.09.1999)

TITLE OF INVENTION
A DRAINAGE PIPE COVERING KIT FOR USE DURING BUILDING OR FLOOR CONSTRUCTION

APPLICANT(S) FOR DO/EO/US

Leslie L. HOWSON

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to promptly begin national examination procedures (35 U.S.C. 371(f)).
4. ☒ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 16 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A FIRST preliminary amendment.
☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☐ Other items or information: Return Receipt Postcard

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 107-088887		INTERNATIONAL APPLICATION NO. PCT/AU00/01168		ATTORNEY'S DOCKET NUMBER 4418-2	
17. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) : Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$1040.00 and International Search Report not prepared by the EPO or JPO \$1000.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO. \$860.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$710.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$690.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT =</div>				CALCULATIONS PTO USE ONLY <div style="border: 1px solid black; height: 150px; margin-top: 10px;"></div>	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$ 1040.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	16 - 20 =	0	X \$18.00	\$	0.00
Independent claims	1 - 3 =	0	X \$80.00	\$	0.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$	1,040.00
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$	520.00
SUBTOTAL =				\$	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$	520.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED =				\$	520.00
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>520.00</u> to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. <u>07-1730</u> in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>07-1730</u> . A duplicate copy of this sheet is enclosed.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO: WEISZ, Tiberiu GOTTLIEB RACKMAN & REISMAN PC 270 Madison Avenue New York, NY 10016-0601 US			<div style="text-align: center;"> SIGNATURE: Tiberiu Weisz NAME 29,876 REGISTRATION NUMBER </div>		

Docket No. 4418-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	: Leslie L. Howson	Group Art Unit: To Be Assigned
Serial No.	: To Be Assigned	Examiner : To Be Assigned
International Application No:	PCT/AU00/01168	
Filing Date	: Enclosed Herewith	
For	: A DRAINAGE PIPE COVERING KIT FOR USE DURING BUILDING OR FLOOR CONSTRUCTION	

Commissioner for Patents
Box PCT
Washington, D.C. 20231
Attention: DO/EO/US

PRELIMINARY AMENDMENT

Sir:

Prior to the computation of the filing fee, kindly amend the accompanying newly-filed patent application (identified above, and being filed pursuant to 35 U.S.C Section 371) as follows:

IN THE CLAIMS :

Please cancel claims 17 through 19 without prejudice and amend claims 6-8,11-12 and 15 as follows:

6. (Amended) An accessory as claimed in claim 1, in which the removeable closure is connected to the inlet end portion by a zone of weakness to facilitate separation of the closure from the inlet end portion.

Docket No. 4418-2

7. (Amended) An accessory as claimed in claim 1, in which the end portion has a plurality of openings defined therein to permit drainage of excess water collected about the inlet end portion.

8. (Amended) An accessory as claimed in claim 1, which includes a grate member that is received in the inlet end portion, once the closure has been removed.

11. (Amended) An accessory as claimed in claim 1, which is of a plastics material.

12. (Amended) An accessory as claimed in claim 1, which includes a sealing member having a flange portion and a body portion, the body portion defining a passage in which the conduit is received and the flange portion being positioned to extend radially from the conduit when the conduit is received in the passage, the conduit and the body portion being attachable to a drain pipe positioned in a substructure, with the flange portion overlying an upper surface of the substructure.

15. (Amended) A kit as claimed in claim 14, wherein the kit includes an accessory for use in construction, said accessory comprising a conduit that has an inlet end portion and an outlet end portion, the outlet end portion being mountable on a drainage pipe so that the conduit and the drainage pipe are in fluid communication with each other; and a removable closure member which is mounted on the inlet end portion to close the conduit when not in use so that the ingress of detritus into the drainage pipe is inhibited.

Docket No. 4418-2

REMARKS

Claim 17 through 19 have been canceled and the claims 6-8,11-12 and 15 have been amended to correct their dependency and, further, to define more precisely the scope of the claimed invention.

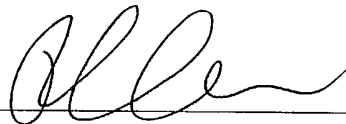
It is respectfully submitted that no new matter has been added by the aforementioned amendment. Early and favorable examination is earnestly requested.

Respectfully submitted

GOTTLIEB, RACKMAN & REISMAN, P.C.

Dated: 03.22.2002

By: _____



Tiberiu Weisz
Attorney for Applicant
Reg. No. 29,876

CORRESPONDENCE ADDRESS:

GOTTLIEB, RACKMAN & REISMAN, P.C.
270 Madison Avenue
New York, New York 10016-0601
Phone : (212) 684-3900
Facsimile: (212) 684-3999

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

6. (Amended) An accessory as claimed in [anyone of the preceding claims] claim 1, in which the removeable closure is connected to the inlet end portion by a zone of weakness to facilitate separation of the closure from the inlet end portion.

7. (Amended) An accessory as claimed in [anyone of the preceding claims] claim 1, in which the end portion has a plurality of openings defined therein to permit drainage of excess water collected about the inlet end portion.

8. (Amended) An accessory as claimed in [anyone of the preceding claims] claim 1, which includes a grate member that is received in the inlet end portion, once the closure has been removed.

11. (Amended) An [The] accessory as claimed in [anyone of the preceding claims] claim 1, which is of a plastics material.

12. (Amended) An [The] accessory as claimed in [anyone of the preceding claims] claim 1, which includes a sealing member having a flange portion and a body portion, the body portion defining a passage in which the conduit is received and the flange portion being positioned to extend radially from the conduit when the conduit is received in the passage, the conduit and the body portion being attachable to a drain pipe positioned in a substructure, with the flange portion overlying an upper surface of the substructure.

15. (Amended) A kit as claimed in claim 14, [which] wherein the kit includes [the] an accessory for use in construction [as claimed in anyone of claims 1 to 13, inclusive], said accessory comprising a conduit that has an inlet end portion and an outlet end portion, the outlet

Docket No. 4418-2

end portion being mountable on a drainage pipe so that the conduit and the drainage pipe are in fluid communication with each other; and a removable closure member which is mounted on the inlet end portion to close the conduit when not in use so that the ingress of detritus into the drainage pipe is inhibited.

WO 01/23680

11/pts

↑

A DRAINAGE PIPE COVERING KIT FOR USE DURING BUILDING OR FLOOR CONSTRUCTION

This invention relates to drainage pipes. More particularly, this invention relates to an accessory for use in construction, to a drainage kit and to a method of construction.

Conventionally, drainage pipes are usually positioned in a substrate to be flush with or to extend partially from the substrate. Once this has been done, a layer of screed is formed on the substrate. A bed of tiles may or may not then be positioned on the screed. It has been found that, during construction, screed material is often disposed of in the drainage pipe. Where tiles are layed on the screed layer, the tiles are broken off at a region about the drainage pipe to provide a location in which a drain grate can be positioned. These pieces of broken tile are often also disposed of in the drainage pipe.

The waste screed and tile pieces can cause substantial problems at a later stage. In fact, it is well known in the plumbing trade that initial call backs on new buildings are usually due to blockages resulting from material disposed of in the drainage pipes.

A problem presently facing tilers is the provision of a level mark which the tiler can use to determine the thickness of screed to be placed on the substrate. At present, tilers have a difficulty in achieving a consistently level surface of screed because of the lack of a central mark that they can use as a reference point.

It will be appreciated that it would be desirable for a means to be provided whereby the above issues can be addressed.

According to a first aspect of the invention, there is provided an accessory for use in construction, the accessory including

WO 01/23680

PCT/AU00/01168

2

a conduit that has an inlet end portion and an outlet end portion, the outlet end portion being mountable on a drainage pipe so that the conduit and the drainage pipe are in fluid communication with each other; and

5 a removable closure member which is mounted on the inlet end portion to close the conduit when not in use so that the ingress of detritus into the drainage pipe is inhibited.

10 The accessory may include a reference level arrangement that is positioned on the conduit and is configured so that, when the conduit is mounted on the drainage pipe, the reference level arrangement provides at least a reference level for a thickness of a screed layer to be formed on a substrate.

15 The conduit may be circular cylindrical. The inlet end portion of the conduit may be of an enlarged diameter. Further, a distance between a shoulder defined at a junction between the inlet end portion and a remaining portion of the conduit and an end of the inlet end portion may be at least substantially equivalent to a desired thickness of a screed layer, so that the inlet end portion defines the reference level arrangement.

20

The removable closure may be connected to the inlet end portion by a zone of weakness to facilitate separation of the closure from the inlet end portion.

25

The inlet end portion may have a plurality of openings defined therein to permit drainage of excess water collected about the inlet end portion.

30 The accessory may include a grate member that is received in the inlet end portion, once the closure has been removed. The grate member may be an assembly of a grate frame and a grate element. The grate

WO 01/23680

PCT/AU00/01168

3

frame may define an inwardly extending lip on which the grate element is supported, while the grate element may define a shoulder that bears against the lip of the grate frame.

5 The accessory may be of a plastics material.

10 The accessory may include a sealing member having a flange portion and a body portion. The body portion may define a passage in which the conduit is received and the flange portion may be positioned to extend radially from the conduit when the conduit is received in the passage. The conduit and the body portion may be attachable to a drain pipe positioned in a substructure, with the flange portion overlying an upper surface of the substructure.

15 The sealing member may be of a suitable sealing material such an elastomeric material.

According to a second aspect of the invention, there is provided a drainage kit, the kit including

20 a conduit that has an inlet end and an outlet end;
a removable closure that is mounted on the inlet end of the conduit to close the conduit when not in use; and
a sealing member having a flange portion and a body portion that
25 defines a passage, the conduit being mountable to the body portion so that the outlet end of the conduit and the passage are in fluid communication with each other.

According to a third aspect of the invention, there is provided a method of construction, the method including the steps of

30 mounting a conduit on a drainage pipe, the conduit having an inlet end portion and an outlet end portion so that the conduit and the drainage pipe are in fluid communication with each other, the inlet end

WO 01/23680

PCT/AU00/01168

4

portion having a removable closure member to close the conduit when not in use so that the ingress of detritus into the drainage pipe is inhibited;

removing the closure member; and

5 positioning a grate member in the inlet end portion, once the closure has been removed.

10 An accessory in accordance with this invention may manifest itself in a variety of forms. It will be convenient hereinafter to describe in detail preferred embodiments of the invention with reference to the accompanying drawings. The purpose of this specific description is to instruct persons having an interest in the subject matter of the invention how to carry the invention into practical effect. It is to be clearly understood, however, that the specific nature of this description does not
15 supersede the generality of the preceding broad description. In the drawings:

FIG. 1 shows a plan view of a first embodiment of an accessory, in accordance with the invention, for use in construction;

FIG. 2 shows a side view of the accessory of FIG 1;

20 FIG. 3 shows a side sectioned view of the accessory of FIG 1, without a closure piece;

FIG. 4 shows the accessory of FIG 1 in a typical application;

FIG. 5 shows a side sectioned view of a second embodiment of an accessory, in accordance with the invention, for use in construction;

25 FIG. 6 shows a side view of the accessory of FIG 5 in a typical application;

FIG. 7 shows a plan view of a third embodiment of an accessory, in accordance with the invention, for use in construction;

FIG. 8 shows a side view of the accessory of FIG 7.

30 FIG. 9 shows a conduit for a fourth embodiment of a drainage accessory, in accordance with the invention;

WO 01/23680

PCT/AU00/01168

5

FIG. 10 shows a schematic side view of the drainage accessory of FIG. 9;

FIG. 11 shows one embodiment of a grate of a drainage kit, also in accordance with the invention;

FIG. 12 shows a schematic side view of the grate;

FIG. 13 shows a plan view of the grate, in position;

FIG. 14 shows a plan view of a conduit of the kit;

FIG. 15 shows a side view of the conduit of FIG 14;

FIG. 16 shows a side sectioned view of a seal member of the kit;

FIG. 17 shows a side view of the seal member of FIG 16;

FIG. 18 shows a side view of another embodiment of the accessory;

FIG. 19 shows a side sectioned view of another embodiment of a seal member for use with the embodiment of FIG 18; and

FIG. 20 shows a side view of the seal member of FIG 19.

In FIGS 1 to 4, reference 10 generally indicates an accessory, in accordance with the invention, for use in construction. The accessory 10 includes a conduit 12. The conduit 12 has an inlet end portion 14 which defines an inlet 16 and an outlet end portion 18 which defines an outlet 20.

The outlet end portion 18 has a radially extending flexible lip 21 defined thereon. The lip 21 is dimensioned to be deformed when the conduit 12 is inserted into a drainage pipe 22. Furthermore, the flexible lip 21 is of sufficient resilience to result in the conduit 12 being retained in position in the drainage pipe 22.

The conduit 12 is circular cylindrical with the inlet end portion 14 being of an increased diameter. It follows that a shoulder 26 is defined between the end portion 14 and a remaining portion 28 of the conduit 12.

WO 01/23680

PCT/AU00/01168

6

As is well known in the field, the drainage pipe 22 is mounted in a substrate 30 which, in this case, is in the form of concrete 32. The inlet end portion 14 has a diameter that is greater than that of the drainage pipe 22.

- 5 The conduit 12 is inserted, outlet end 18 first, into an inlet 34 of the drainage pipe 22. The conduit 12 is inserted so that the shoulder 26 bears against an upper surface 36 of the concrete substrate 30.

- 10 A length of the inlet end portion 14 is equivalent to a thickness of screed 38 to be formed on the substrate 30. Thus, the inlet end portion 14 defines a reference level means whereby a tiler can use the inlet end portion 14 as a reference for laying the screed 38.

- 15 A removable closure 40 is mounted on the inlet end portion 14 via a zone of weakness 44. The zone of weakness 44 permits and facilitates the removal of the closure piece 42 from the remainder of the conduit 12.

- 20 A resultant opening 46 following removal of the closure piece 42 is dimensioned so that a drain grate 48 can be fitted in the opening 46.

- A lower region 50 of the inlet end portion 24 has a plurality of openings 52 defined therein. The openings 52 are positioned to be substantially in alignment with the upper surface 36 of the substrate 30.

- 25 The accessory 10 is in the form of a unitary one piece structure. Further, the accessory 10 is manufactured from a resilient plastics material, such as a polyvinylchloride.

- 30 In use, the conduit 12 is inserted, outlet end 18 first, into the drainage pipe 22 until the shoulder 26 bears against the inlet 34 of the drainage pipe 22 or the upper surface 36 of the substrate 30. A tiler can then lay the screed 38 on the concrete 32 using the inlet end portion 14 as a guide to the thickness of the

WO 01/23680

PCT/AU00/01168

7

screed 38 to be laid. A layer of tiles 54 is then laid on the screed 38. Both the screed 38 and the tiles 54 are laid in a conventional fashion.

5 The tiles are then cut at the location of the drainage pipe 22 to accommodate the drain grate 48. Once the area has been cleaned of screed material and tile chips, the removable closure 40 is removed. The drain grate 48 is then fixed in place, in a conventional manner.

10 In FIG's 5 and 6, reference numeral 60 generally indicates a second embodiment of an accessory, in accordance with the invention, for use in construction. With reference to FIG's 1 to 4, like reference numerals refer to like parts, unless otherwise specified.

15 A primary difference between the accessory 10 and the accessory 60 are the relative dimensions of the inlet end portion 24 and the remaining portion 28. This is clear from the drawings.

20 In FIG's 7 and 8, reference numeral 70 generally indicates a third embodiment of an accessory, in accordance with the invention, for use in construction. With reference to FIG's 1 to 6, like reference numerals refer to like parts, unless otherwise specified.

25 Again, a primary difference between the accessories 10, 60 and the accessory 70 are the relative dimensions of the inlet end portion 24 and the remaining portion 28. This is clear from the drawings.

30 In FIG 10, reference 80 generally indicates a further embodiment of a drainage accessory, in accordance with the invention. With reference to FIGS 1 to 8, like reference numerals refer to like parts, unless otherwise specified. The conduit 12 of the accessory 80 is shown in FIG 9.

WO 01/23680

PCT/AU00/01168

8

The accessory 80 is mounted on an existing drainpipe 82. The accessory 80 includes a seal member or puddle flange 84. The puddle flange 84 includes a body portion 86 and a flange portion 88.

- 5 The body portion 86 defines a passage 90. A lower end portion 92 of the body portion 86 is received in the drainpipe 82.

10 The outlet end portion 18 of the conduit 12 is received in the drainpipe 82. The lower end portion 92 of the body portion 86 of the puddle flange 84 is sandwiched between the outlet end portion 18 of the conduit 12 and a wall 94 of the drainpipe 82.

15 The puddle flange 84 is dimensioned so that, when the lower end portion 92 of the puddle flange 84 is in position, the flange portion 88 overlays a region of a substructure in the form of a slab 96 surrounding the drain pipe 82.

20 The inlet end portion 14 is dimensioned so that the shoulder 26 bears against the flange portion 88 of the puddle flange 84 so that the flange portion 88 is sandwiched between the shoulder 26 and the slab 96.

The puddle flange 84 is of a suitable sealing material, and, in particular, is of an elastomeric material. This provides a sealing effect between the slab 96 and the inlet end portion 14.

- 25 In FIGS 11, 12 and 13, there is shown a grate 98 in accordance with the invention. The grate 98 is an assembly of a grate frame 100 and a grate element 102.

30 The grate frame 100 is rectangular and defines a circular opening 104. In particular, the grate frame 100 defines an inwardly extending lip 106 positioned on a periphery 108 of the opening 104.

WO 01/23680

PCT/AU00/01168

9

The grate element 100 has a circular cylindrical body 110 that is dimensioned to fit snugly through the opening 104. An upper end portion 112 of the grate element 100 has an enlarged diameter so that a shoulder 114 is defined at a junction between the upper end portion 112 and the remainder of the body 110.

- 5 The shoulder 114 is positioned to bear against the lip 106, in use. Furthermore, the upper end portion 112 is of a suitable thickness so that the grate element 102 is flush with the grate frame 100.

- 10 As can be seen in FIG 14, the removable closure 40 is in the form of a blank 116 connected to the conduit 12 via the zone of weakness 44. The zone of weakness 44 is such that cutting of the blank 116 away from the conduit 12 is facilitated. The zone of weakness 44 is circular and demarcates a cross sectional area that is equivalent to a cross sectional area of a lower portion 118 of the grate element 102.

- 15 As can be seen in FIG 10 and FIG 18, the grate frame 100 rests on top of the enlarged inlet end portion 24. In this position, the grate element 102 extends downwardly through the resultant opening 46 that is defined when the removable closure 40 is removed.

- 20 In a floor structure, there is provided a slab level 120, a bedding level 122 and a tile level 124. The thickness of the inlet end portion 14 is such that the height of bedding to be laid on the slab 96 corresponds with the height of an upper surface 126 of the inlet end portion 14 when the inlet end portion 14 is in position.

A thickness of the grate frame 100 corresponds to a distance between the bedding level 122 and the tile level 124.

- 30 It will therefore be appreciated that the inlet end portion 14 serves as a reference level for a tiler laying the bedding.

WO 01/23680

PCT/AU00/01168

10

Once the bedding has been laid, the tiles are placed on the bedding. The tiles are then cut and shaped to suit the grate 98. The area is then cleaned of any debris. The closure 40 is then cut away from the inlet end portion 14. The grate 98 is placed as shown in FIGS 10 and 18. The fact that the thickness of the grate frame 100 corresponds to the distance between the bedding level 122 and the tile level 124 serves to provide a substantially flush finish.

Tiles are usually rectangular. Thus, the rectangular grate frame 100 facilitates accurate cutting of the tiles and reduces the amount of time spent by a tiler in correctly shaping the tiles in the region of the drainage accessory 80.

A plurality of drainage openings 128 are defined in the inlet end portion 14 proximate the shoulder 26. The drainage openings 128 are positioned so that, when the conduit 12 is in position on the drain pipe 82 and prior to the bedding and the tiles being laid, any water accumulating in the region of the drainpipe 82 is drained away via the openings 128.

The drainage accessory 80 can be supplied in the form of a kit, also in accordance with the invention. The kit can include the conduit 12 and the puddle flange 84. In addition to the conduit 12 and puddle flange 84, the kit can also include the grate 98. It will thus be appreciated that the puddle flange 84 will be particularly shaped to suit the conduit 12. Still further, the grate 98 will also be shaped and configured to suit the conduit 12.

A particular advantage of providing the accessory 80 in the form of a kit is that a plumber will be in a position to install all the components necessary for drainage without having to source various components from different suppliers.

The conduit 12 and the grate frame 100 are of a plastics material.

In the example described above and as can be seen in the drawings, the conduit 12 is provided in two different sizes. It follows that the puddle flange 84

WO 01/23680

PCT/AU00/01168

11

is also provided in two different configurations. One of the configurations is shown in FIGS 10 and 17, while the other configuration is shown in FIGS 19 and 20. It should be noted that the invention is in no way restricted to these two sizes and that they have been given only by way of illustration.

5

Further, the puddle flange 84 can be dimensioned so that the lower end portion 92 can either fit over an end of one form of standard drainpipe or within an end of another form of standard drainpipe.

10 As has been set out earlier, a major problem with the construction of floors incorporating drainage outlets is that screed material and pieces of tile are often disposed of in the drainpipe. In addition, various other items of waste such as empty cement packets are often used to block drainpipes, to prevent disposal of waste materials during construction in the drainpipes. The empty cement
15 packets themselves then cause substantial plumbing problems. The blockage of drainpipes as a result of this sort of activity is one of the main reasons for a plumber's first call out on a new construction.

20 One of the significant advantages of this invention is that screed material and tiles are inhibited from entering the drainage pipe 22. This is as a result of the removable closure being left in place until such time as it becomes necessary to mount the drain grate 98.

25 It will of course be realised that the above has been given only by way of illustrative example of the invention and that all such modifications and variations thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of the invention as is herein set forth.

WO 01/23680

PCT/AU00/01168

12

CLAIMS

1. An accessory for use in construction, the accessory including

5 a conduit that has an inlet end portion and an outlet end portion, the outlet end portion being mountable on a drainage pipe so that the conduit and the drainage pipe are in fluid communication with each other; and

10 a removable closure member which is mounted on the inlet end portion to close the conduit when not in use so that the ingress of detritus into the drainage pipe is inhibited.

2. The accessory as claimed in claim 1, which includes a reference level arrangement that is positioned on the conduit and is configured so that, 15 when the conduit is mounted on the drainage pipe, the reference level arrangement provides at least a reference level for a thickness of a screed layer to be formed on a substrate.

3. The accessory as claimed in claim 2, in which the conduit is circular 20 cylindrical.

4. The accessory as claimed in claim 3, in which the inlet end portion is of an enlarged diameter.

25 5. An accessory as claimed in claim 4, in which a distance between a shoulder defined at a junction between the inlet end portion and a remaining portion of the conduit and an end of the inlet end portion is at least substantially equivalent to a desired thickness of a screed layer, so that the inlet end portion defines the reference level arrangement.

30

WO 01/23680

PCT/AU00/01168

13

6. An accessory as claimed in any one of the preceding claims, in which the removeable closure is connected to the inlet end portion by a zone of weakness to facilitate separation of the closure from the inlet end portion.
- 5 7. An accessory as claimed in any one of the preceding claims, in which the end portion has a plurality of openings defined therein to permit drainage of excess water collected about the inlet end portion.
- 10 8. An accessory as claimed in any one of the preceding claims, which includes a grate member that is received in the inlet end portion, once the closure has been removed.
- 15 9. An accessory as claimed in claim 8, in which the grate member is an assembly of a grate frame and a grate element.
- 20 10. An accessory as claimed in claim 9, in which the grate frame defines an inwardly extending lip on which the grate element is supported, while the grate element defines a shoulder that bears against the lip of the grate frame.
- 25 11. The accessory as claimed in any one of the preceding claims, which is of a plastics material.
- 30 12. The accessory as claimed in any one of the preceding claims, which includes a sealing member having a flange portion and a body portion, the body portion defining a passage in which the conduit is received and the flange portion being positioned to extend radially from the conduit when the conduit is received in the passage, the conduit and the body portion being attachable to a drain pipe positioned in a substructure, with the flange portion overlying an upper surface of the substructure.

WO 01/23680

PCT/AU00/01168

14

13. An accessory as claimed in claim 12, in which the sealing member is of a suitable sealing material such as an elastomeric material.

14. A drainage kit, the kit including

5 a conduit that has an inlet end and an outlet end;

a removable closure that is mounted on the inlet end of the conduit to close the conduit when not in use; and

10 a sealing member having a flange portion and a body portion that defines a passage, the conduit being mountable on the body portion so that the outlet end of the conduit and the passage are in fluid communication with each other.

15. A kit as claimed in claim 14, which includes the accessory as claimed in any one of claims 1 to 13, inclusive.

16. A method of construction which includes the steps of

20 mounting a conduit on a drainage pipe, the conduit having an inlet end portion and an outlet end portion so that the conduit and the drainage pipe are in fluid communication with each other, the inlet end portion having a removable closure member to close the conduit when not in use so that the ingress of detritus into the drainage pipe is inhibited;

removing the closure member; and

25 positioning a grate member in the inlet end portion, once the closure member has been removed.

17. A new accessory for use in construction, substantially as described herein, with reference to the accompanying drawings.

30 18. A new drainage kit, substantially as described herein, with reference to the drawings.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

A PUBLISHED INTERNATIONAL APPLICATION UNDER THE PATENT COOPERATION TREATY (PCT)

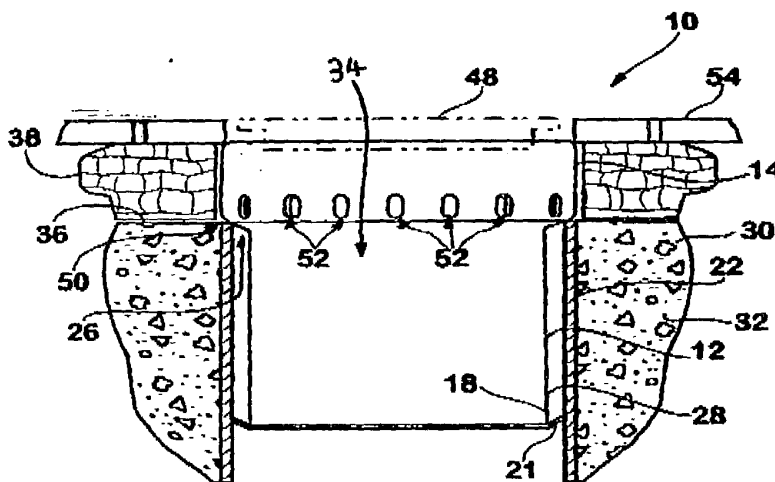
(43) International Publication Date
5 April 2001 (05.04.2001)

PCT

(10) International Publication Number
WO 01/23680 A1

- (51) International Patent Classification: E03F 5/04 (74) Agent: PIZZEYS PATENT & TRADE MARK ATTORNEYS; Telstra House, Level 11, 167 Eagle Street, Brisbane, Queensland 4000 (AU).
- (21) International Application Number: PCT/AU00/01168
- (22) International Filing Date: 25 September 2000 (25.09.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PQ 3083 24 September 1999 (24.09.1999) AU
59308/99 10 November 1999 (10.11.1999) AU
PQ 4547 8 December 1999 (08.12.1999) AU
- (71) Applicant (for all designated States except US): ELF-BLEND PTY LTD [AU/AU]; 28 Sunset Boulevard, Surfers Paradise, Queensland 4217 (AU).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): HOWSON, Leslie, Lawrence [AU/AU]; 28 Sunset Boulevard, Surfers Paradise, Queensland 4217 (AU).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— With international search report.
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A DRAINAGE PIPE COVERING KIT FOR USE DURING BUILDING OR FLOOR CONSTRUCTION



(57) Abstract: An accessory for use in construction includes a conduit (12) that has an inlet end (34) portion and an outlet end (18) portion. The outlet end (18) portion is mountable on a drainage pipe (22) so that the conduit (12) and the drainage pipe (22) are in fluid communication with each other. A removable closure member (40) is mounted on the inlet end (34) portion to close the conduit (12) when not in use or during building construction, so that ingress of material or detritus into the drainage pipe (22) is inhibited.

WO 01/23680 A1

WO 01/23680

PCT/AU00/01168

1 / 11

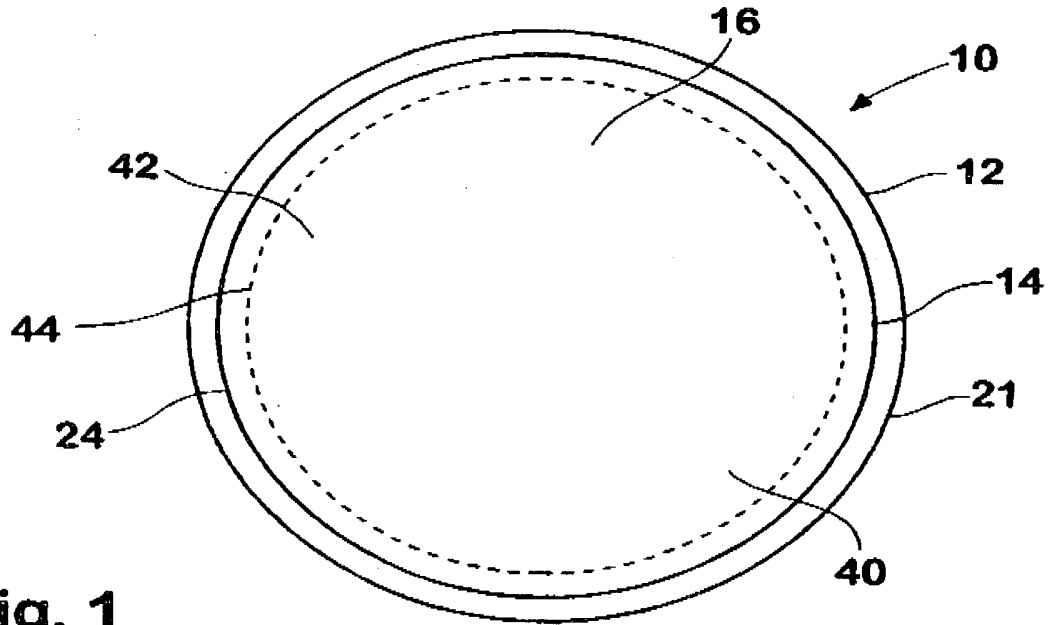


Fig. 1

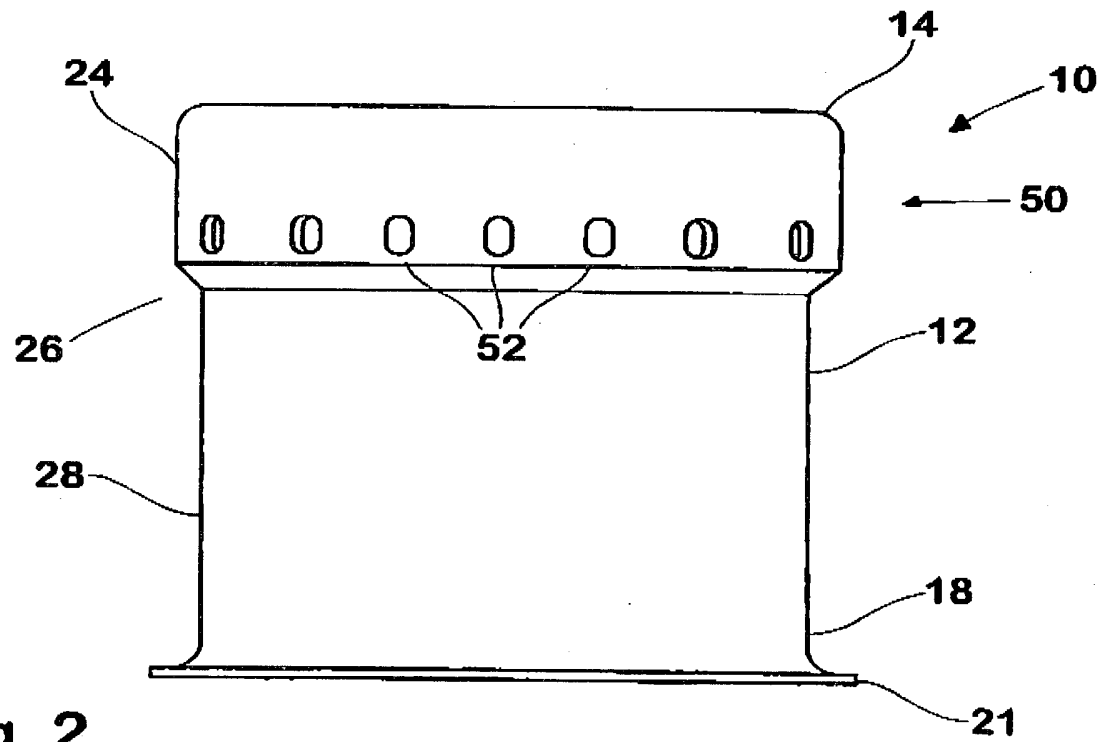


Fig. 2

WO 01/23680

PCT/AU00/01168

2 / 11

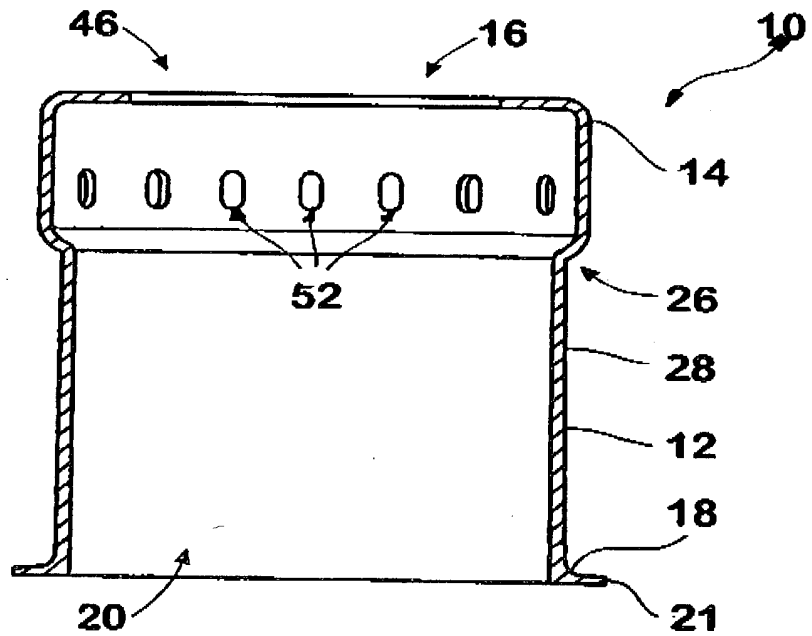


Fig. 3

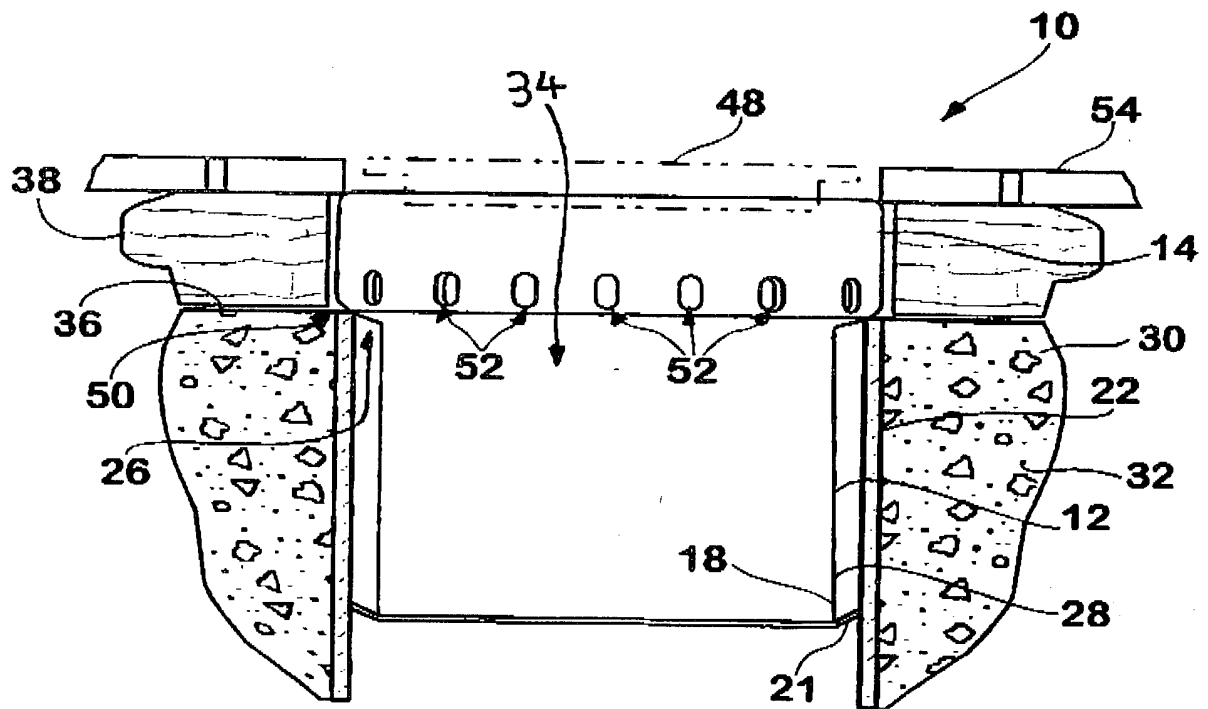


Fig. 4

WO 01/23680

PCT/AU00/01168

3 / 11

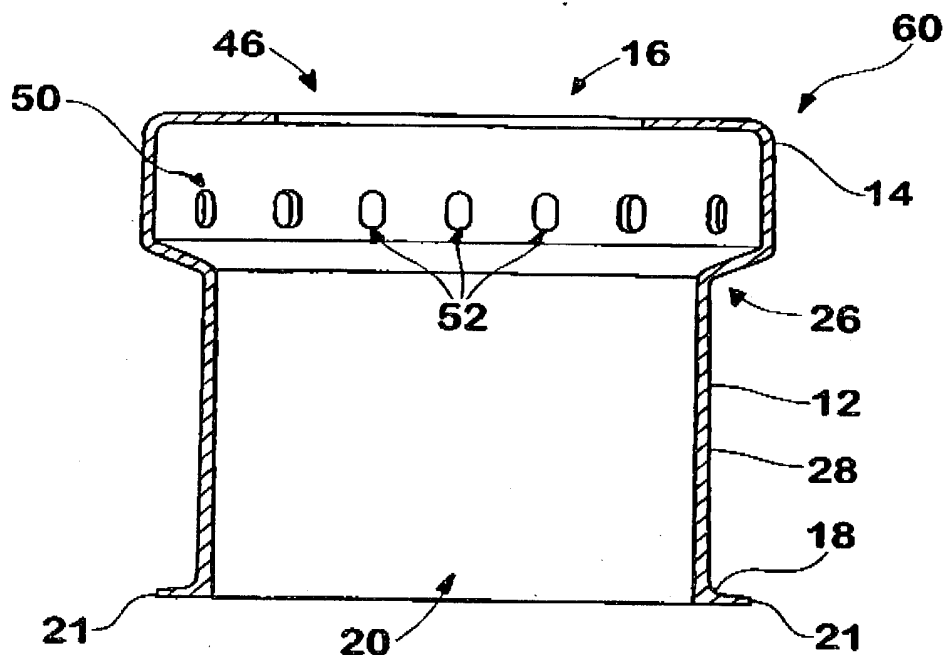


Fig. 5

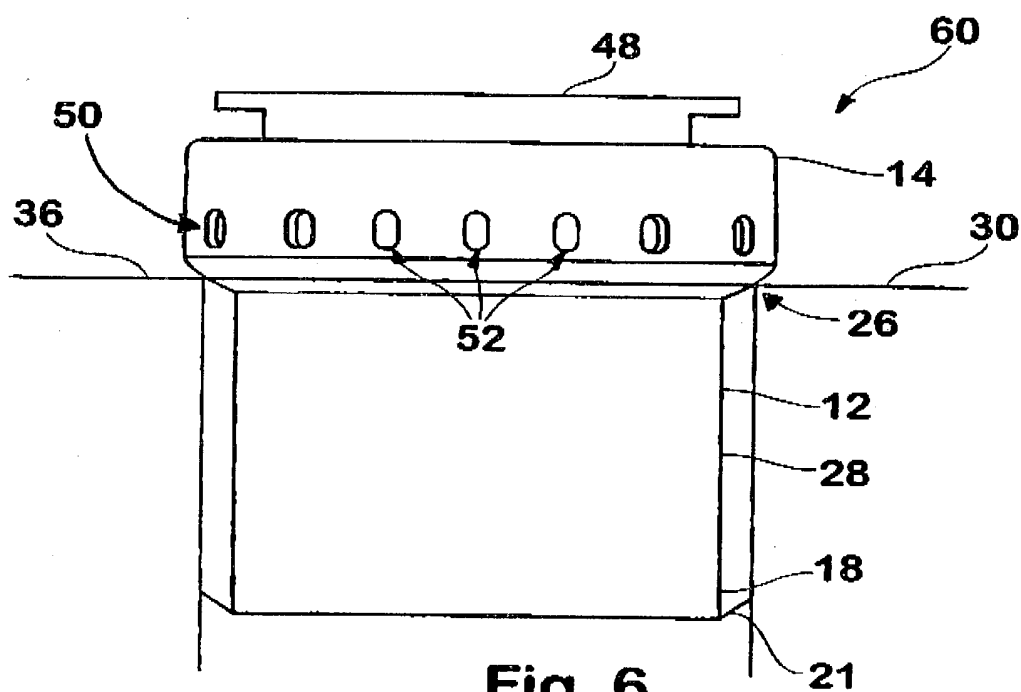


Fig. 6

WO 01/23680

PCT/AU00/01168

4 / 11

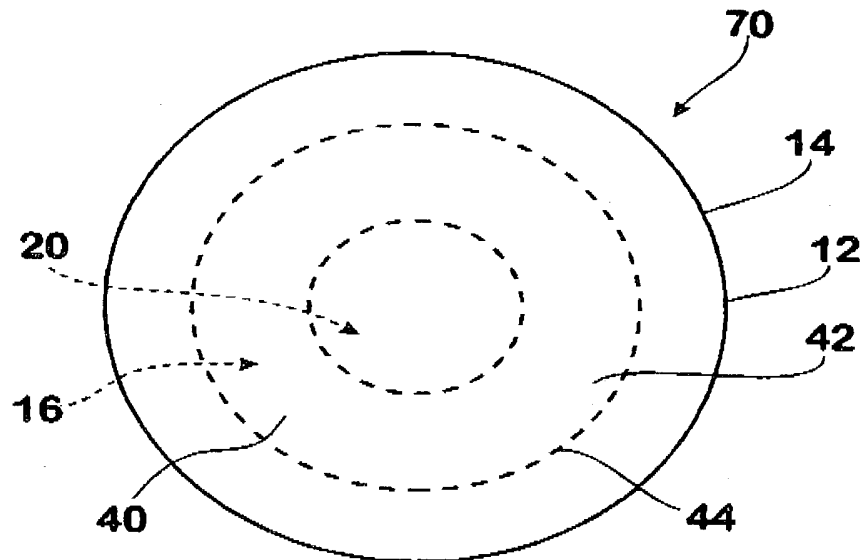


Fig. 7

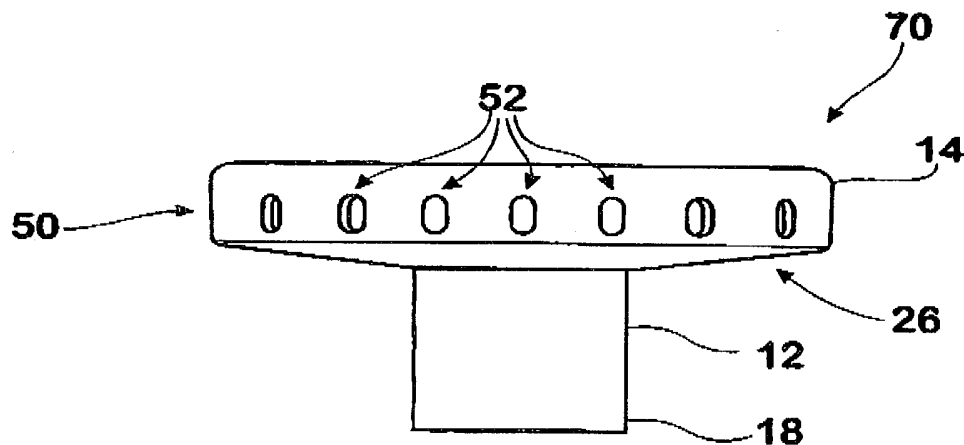


Fig. 8

5 / 11

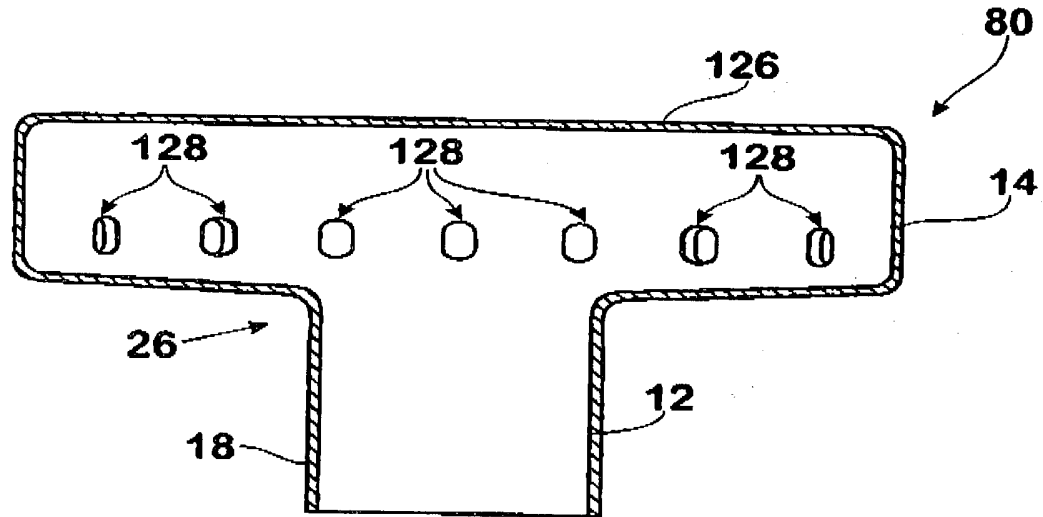


Fig. 9

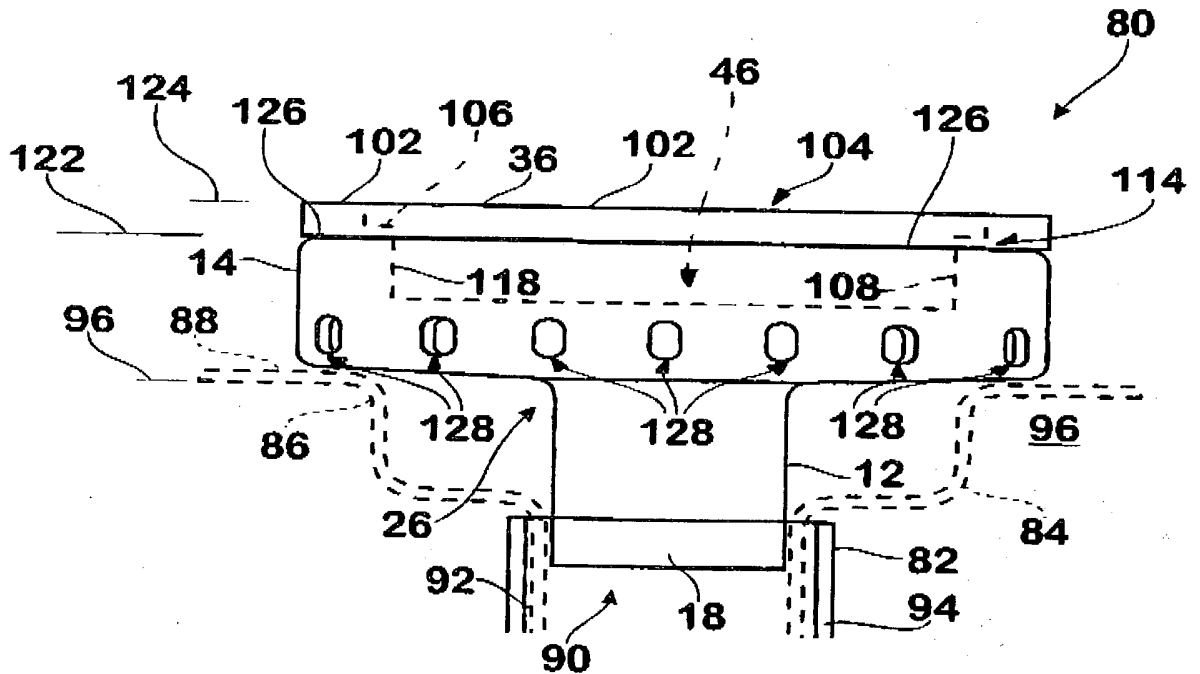


Fig.10

6 / 11

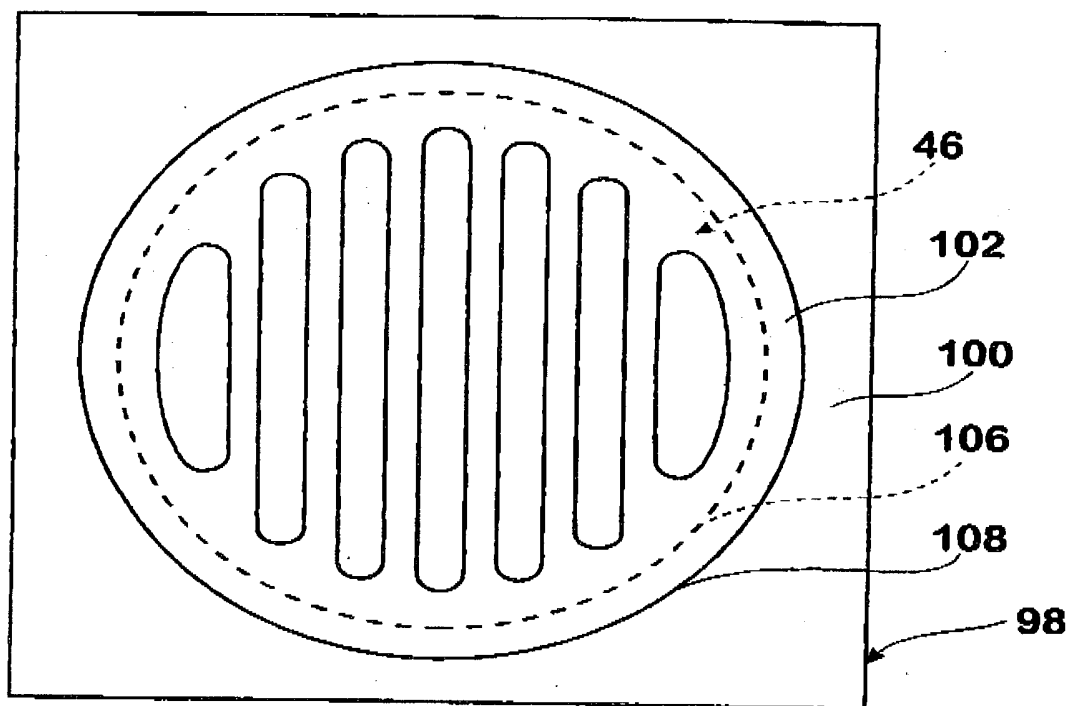


Fig. 11

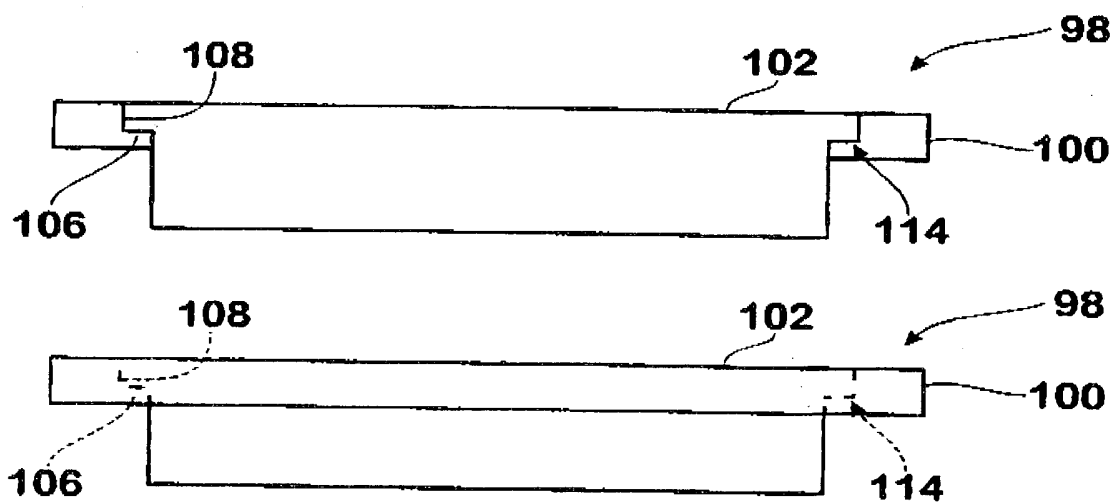


Fig. 12

WO 01/23680

PCT/AU00/01168

7/11

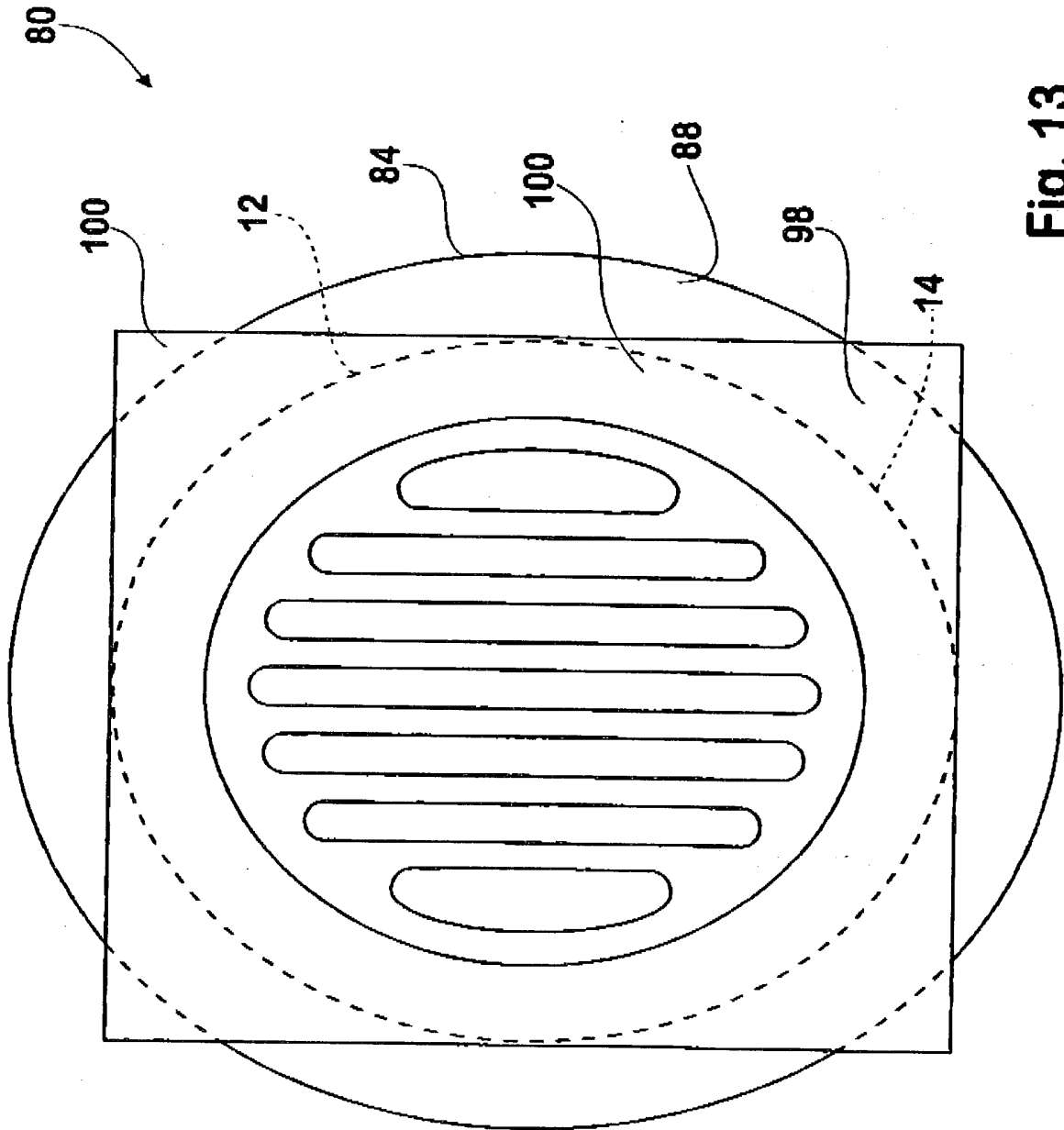


Fig. 13

WO 01/23680

PCT/AU00/01168

8 / 11

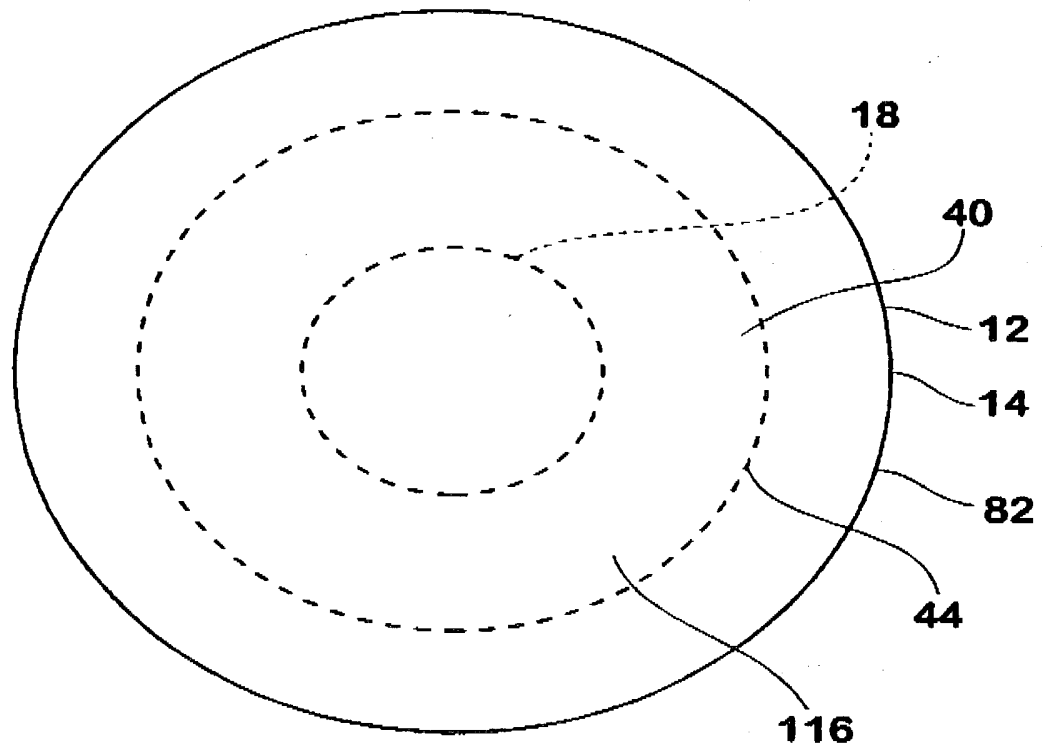


Fig. 14

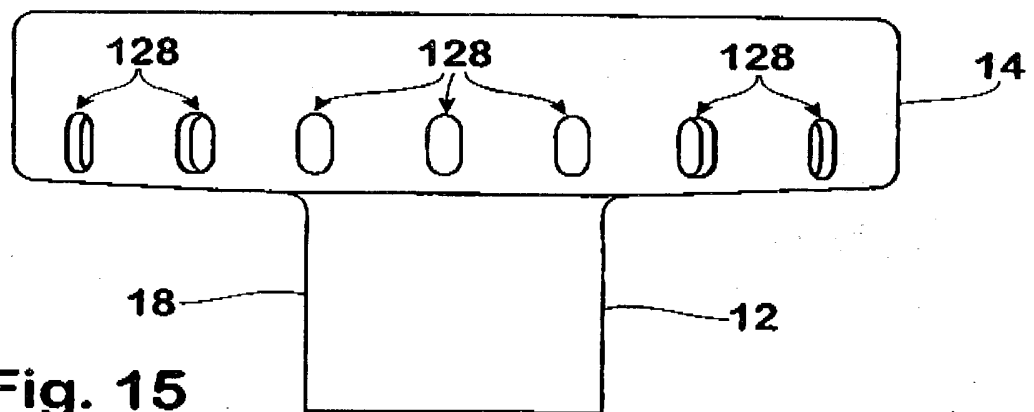


Fig. 15

WO 01/23680

PCT/AU00/01168

9 / 11

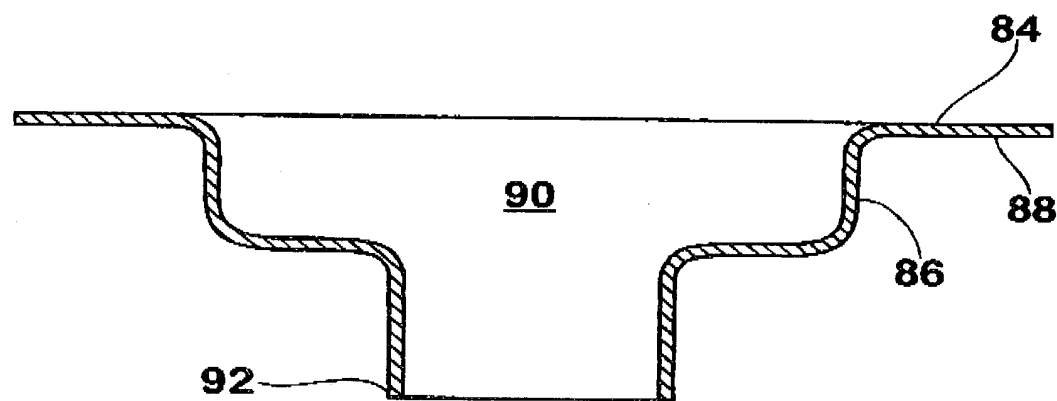


Fig. 16

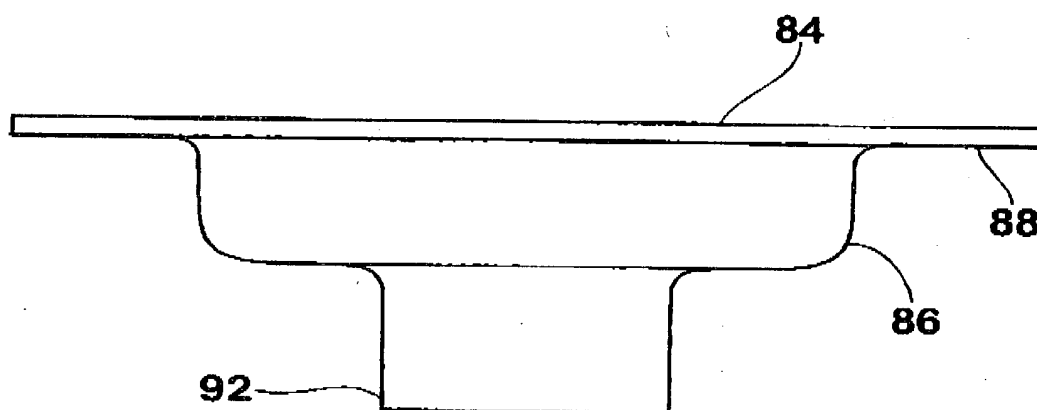


Fig. 17

WO 01/23680

PCT/AU00/01168

10/11

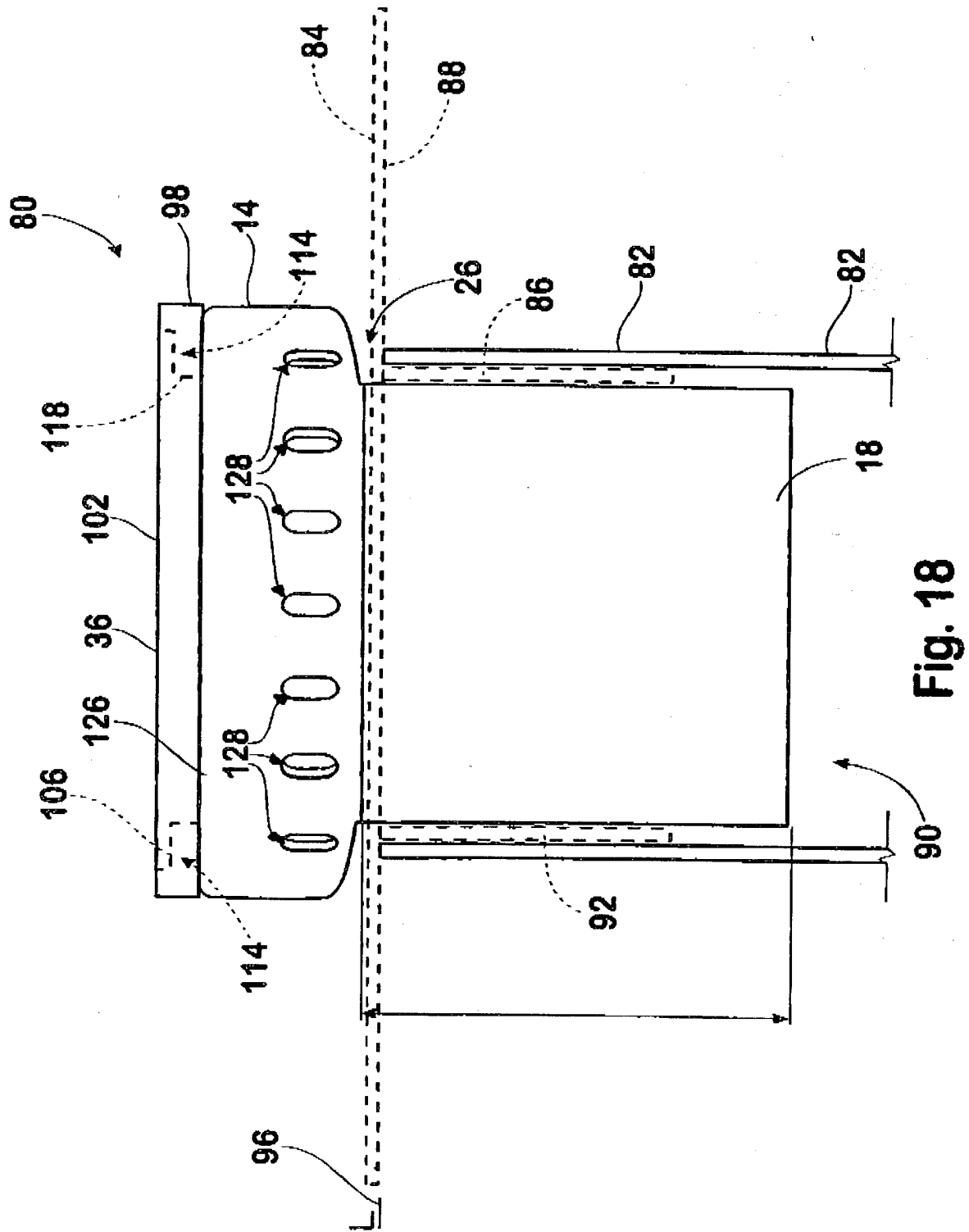


Fig. 18

WO 01/23680

PCT/AU00/01168

11 / 11

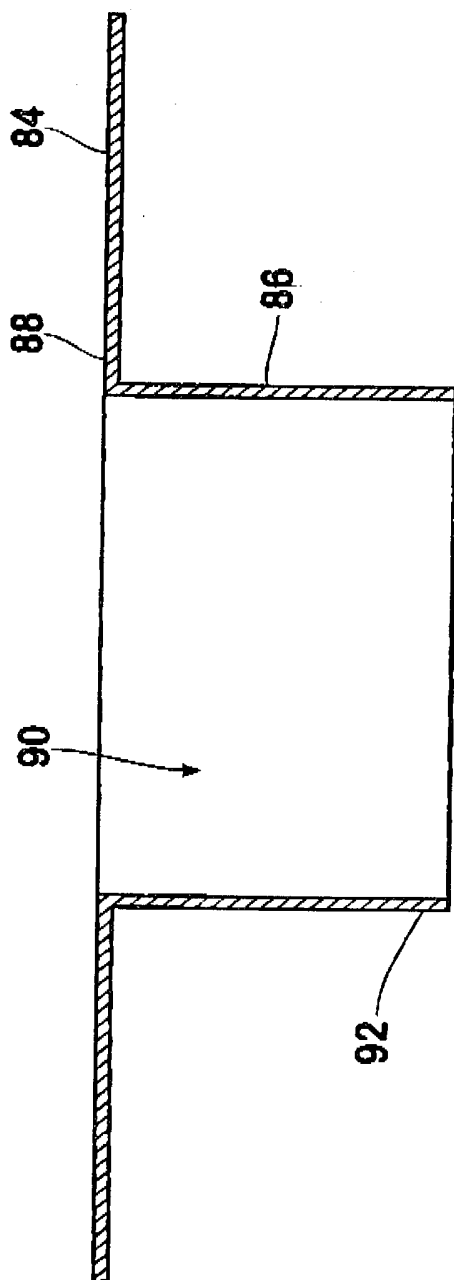


Fig. 19

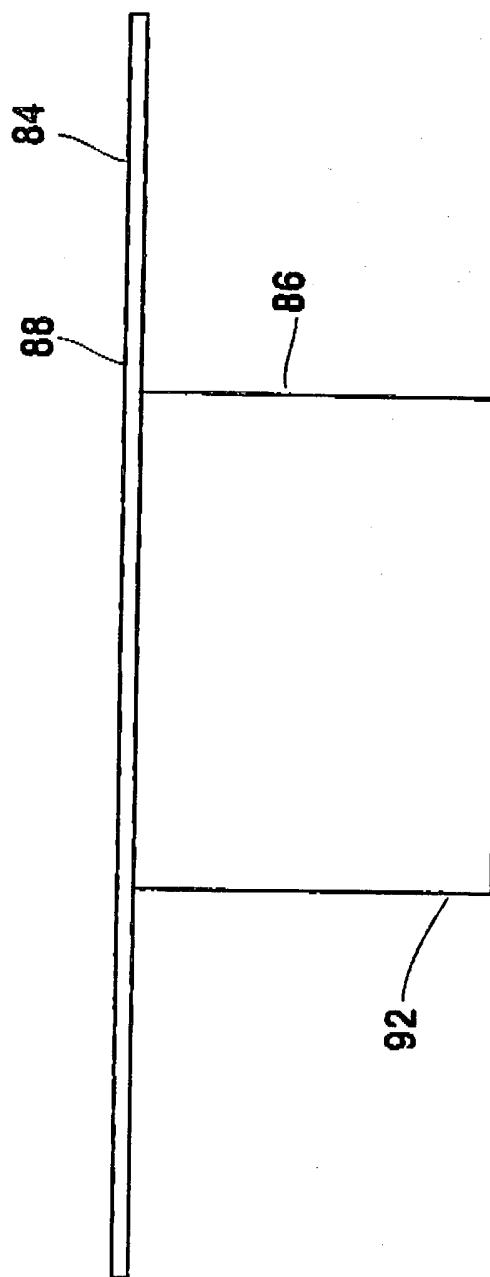


Fig. 20

4418-002

Combined Declaration and Power of Attorney

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled DRAINAGE PIPE COVERING KIT FOR USE DURING BUILDING OR FLOOR CONSTRUCTION

the specification of which

(check one) ☐ is attached hereto. ☒ was filed on March 22, 2002, as United States Application Serial No. 10/088,887 or PCT International Application No. _____, and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 (a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, or Title 35, United States Code, §371, listed below and have also identified below, by checking the appropriate box, any foreign application for patent or inventor's certificate, or of any PCT application having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)**Priority claimed**

<u>PQ 3083</u>	<u>AU</u>	<u>24 September 1999</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	Day/month/year filed	Yes	No
<u>59308/99</u>	<u>AU</u>	<u>10 November 1999</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	Day/month/year filed	Yes	No
<u>PQ 4547</u>	<u>AU</u>	<u>8 December 1999</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	Day/month/year filed	Yes	No

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

(Application No.)

(Filing Date)

(Application No.)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which occurred between the filing date of the prior application and the national

or PCT international filing date of this application:

(Application No.)	(Filing date)	(Status -	patented, pending, abandoned)
(Application No.)	(Filing date)	(Status -	patented, pending, abandoned)

And I hereby appoint

George Gottlieb (Reg.No. 22,035)	Jeffrey M. Kaden (Reg.No. 31,268)
Michael I. Rackman (Reg.No. 20,639)	Amy B. Goldsmith (Reg.No. 33,700)
James Reisman (Reg.No. 22,007)	Norbert P. Holler (Reg.No. 17,816)
Barry A. Cooper (Reg.No. 25,204)	Tiberiu Weisz (Reg.No. 29,876)
David S. Kashman (Reg.No. 28,725)	Maria A. Savio (Reg.No. 31,565)
Allen I. Rubenstein (Reg.No. 27,673)	Raymond B. Churchill (Reg.No. 44,617)

whose address is Gottlieb, Rackman & Reisman, P.C., 270 Madison Avenue, New York NY 10016-0601 (telephone (212) 684-3900), jointly and severally, as my attorneys and/or agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Direct all correspondence and telephone calls to: Tiberiu WEISZ, Esq. at the address and telephone number shown above.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Leslie Lawrence Howson

Inventor's Signature [Signature]

Date 22-8-02

Residence 28 Sunset Boulevard, Surfer's Paradise, Queensland 4217, Australia

Citizenship Australia

Post Office Address Same as above

Prs sign & date